

GENDERED SPACES: EXAMINING WOMAN'S ONLINE WELL-BEING AND RELATIONSHIP MAINTENANCE PATTERNS

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Abstract

Although there exists abundant literature on the potential benefits of using social networking sites (SNSs), there is still a significant gap regarding the potential gendered effects of SNSs. Attempting to address this need, this study seeks to contribute to the understanding of mediated environment's impact on emotional well-being and relationship maintenance patterns among women. In order to understand women's social behaviours in a male-dominated space, as is cyberspace, muted group theory and frameworks for uncertainty management were adopted as theoretical bases for data collection and analysis. After conducting a cross-sectional survey study ($N = 341$), data analysis using a series of ANOVAs indicated females put forth more effort to maintain online relationships than males ($F(1, 338) = 5.09, p = .025$). Additionally, the results of MANOVA suggest that there is significant variance by gender on SNS-related components ($F(3, 336) = 3.90, p = .009$) with female Facebook users having higher level of perceived stress ($M_{diff} = -1.42, SE = 0.65, p = .031$) and lower self-disclosure ($M_{diff} = -2.38, SE = 1.04, p = .023$) than males. The study highlights the effects of women's online experiences on well-being and expands the understanding of emotional reactions to mediated interactions.

Keywords: gender, muted group theory, online well-being, relationship maintenance, uncertainty management

Introduction

Previous studies have revealed that computer-mediated communication on social networking sites (SNSs) has non-ignorable effects on users' emotional well-being (e.g., Wendorf & Yang, 2015); however, the existing literature offers conflicting views regarding the effects of SNS usage on individual's health and well-being (Campisi et al., 2012). Whereas previous studies (e.g., Cheng & Chan, 2006) have examined differences in qualities and duration of online friendship-based gender, there exists a significant gap in addressing the differences in the impact of SNS usage on the individual, particularly the effects on women. Although somewhat limited, Duggan (2015) found that women disproportionately experience severe forms of online harassment. Pew Research Center's American Trends Panel (Fox, 2014) found that women (38% of harassed women) were more likely than men (17% of harassed men) to report recent online harassment as "extremely" or "very upsetting" (Fox, 2015). Given this alarming finding, understanding more about women's online experiences is crucial. Specifically, studies on the emotional well-being of women are critical to understanding the dynamics activated during mediated interactions. Building upon the muted group theory and uncertainty management frameworks, this study addresses the gap in the understanding of computer-mediated environment's impact on a women's emotional well-being as a by-product of their inability to engage in disclosure on SNSs. Thus, this paper contributes to the understanding of gendered differences of experience(s) and their emotional processing, which are essential for the designing safe online spaces for women.

Literature Muted Group Theory

This study expands on the work of Kramarae (1981), Leaper and Robnett (2011), and others on the relationship between gender and social interactions via the exploration of muted group theory (MGT). MGT, which stems from the work of anthropologist Shirley Ardener (Kramarae, 1981), is based on the principle that within societies there are individuals that are part of minority groups. Given the lack of power held by these individuals, their voices are very frequently muted by the dominant group. Specifically for women, as language was primarily developed from the perspectives of the males, such muting has omitted the needs of women (Kramarae, 1981), not only in terms of their self-expression but also their entitlement to access safe spaces. Although this has occurred historically both in the private sphere as well as in the public sphere, today's immediate connectivity via the cyber sphere leads to potentially greater negative effects. According to Kramarae (1981):

Women (and members of other subordinate groups) are not as free or as able as men to say what they wish, when and where they wish, because the words and the norms for their use have been formulated by the dominant group, men...women's perceptions differ from those of men because women's subordination means they experience life differently (p. 1).

Recently, Grace and Mueller (2019) revealed how women were branded as a muted group in NFL panthers communications on their social media as their promotional campaign primarily drew from the life experiences and opinions of men. By acting as the gatekeepers of information, men constrain the involvement of women in different spheres of life through dominance in language-based spaces (e.g., online), as well as limiting the words by which women can express their experiences in such spaces. Thus, for women to communicate they confine themselves to a male-based communication framework, including responding with male-based language and voice, and attitude(s); thereby, muting women's authentic voice. This gendered divide mutes further the women when the topic of their communication is issued of or for women (Kramarae, 1981). Thus, muted group theory provides a critical lens to examine women's online mediated emotions and experiences, which often fall within the exclusionary and silencing online spheres. More importantly, MGT highlights the non-dominant voice in communication channels and systems (Kramarae, 1981), therefore providing a unique analytical perspective to understand the differences between male and female online communication patterns and behaviors.

Uncertainty Management

Interpersonal scholars have explored the needs of online users and their relationship maintenance practices (Shklovski et al., 2015). Further research has also attempted to understand strain (Tokunaga, 2014) and stress factors (Fox & Moreland, 2015), but there is scant literature that highlights the conflict resolution styles of the two groups. Communication is an essential social need that helps humans resolve uncertainty at the intra- and inter-personal as well as inter-group levels. Thus, we draw upon two existing theories of uncertainty management: uncertainty-reduction and anxiety/uncertainty.

Uncertainty-reduction theory (URT; Berger & Calabrese, 1974) posited that individuals tend to have a proactive (cognitive thinking about anticipation) and retroactive (revisiting behaviors and experiences) approach to predict and/or explain behaviours of others in communication transactions. However, both these processes are intrapersonal. Berger and Bradac (1982) elaborated this notion to include interpersonal communication by proposing active, passive and interactive elements. Emphasizing on the interactive element, Rogers et al. (2009) suggested the importance of self-disclosure before reciprocity from the other to engage in disclosure that eventually helps in reducing uncertainty and serves to maintain stability in interactions. Srivastava and Chandra (2018) applied URT to foster relationships of trust to achieve virtual workplace collaboration.

From an intercultural perspective, anxiety/uncertainty management (AUM; Gudykunst, 1993) was propounded to account for the anxiety and uncertainty experienced by individuals in an alien setting as they attempt to comprehend and live by the standards of the host culture. Here, the need for disclosure does not merely entail relationship maintenance but also to co-exist in a space that is defined by the

“dominant” group, as put forth in MGT. In the context of the current study, we attempt to explore whether women struggle to exist in online spaces because of their inability to capitalise on the same communication processes as the creators of these spaces, the men.

Facebook Usage

Social networking sites (SNSs) have experienced tremendous popularity within communication research (Brailovskaia & Bierhoff, 2016). SNSs (e.g., Facebook, Twitter) refer to a form of mediated communication that shares common characteristics and features (Boyd & Ellison, 2007), and since their emergence, SNSs have become part of users' daily practices (Boyd & Ellison, 2007). Since its conception, Facebook has become extremely popular among young adults in the United States, with more than 90% usage rates by this group at most college campuses (Steinfeld, Ellison, & Lampe, 2008). With over 3 billion users worldwide, Facebook, the largest social networking site in the world, serves as “a rich site for researchers interested in the affordances of social networks due to its heavy usage patterns” (Ellison, Steinfield, & Lampe, 2007 p. 1144). In the United States, more than 65% of Internet users use Facebook to share information, follow up friends, and update personal statuses. In general, most young adults report having a SNS account, and the overwhelming majority, 98%, report Facebook being the most frequently used SNS (Lewis et al., 2008). With such a high adoption rate, Facebook has provided an effective platform for greater connectivity, engagement, and information sharing. Based on this, we derive our first research question:

RQ1: Is there a difference in social media usage patterns between females and males?

Relationship Maintenance

It is believed that SNSs are beneficial because they allow users to connect with people who share common interests, irrespective of existing geographic limitations, thereby increasing social capital (Boyd & Ellison, 2007; Steinfield et al., 2008). Generally, social capital refers to the resources acquired by an individual through their relationships with others (Coleman, 1988). These resources have been linked to positive social outcomes (Adler & Kwon, 2002). In this way, SNSs have the potential to serve as a tool for the development of social capital, as increased amounts of time spent on these platforms can be attributed to the building, maintaining, and strengthening of social networks (Valenzuela, Park, & Kee, 2009).

Individuals attempt to access social resources through bridging social capital. Bridging social capital refers to the interaction between people who have tentative relationships, such as relationships developed or maintained through the use of SNSs. These SNS interactions may start as casual relationships that help broaden an individuals' social network and thereby create opportunities for access to new resources and information (Ellison et al., 2007). On the other hand, Ellison et al. (2007) operationalized bonding social capital as the benefits obtained from relationships with reliable and close others. Particularly, research suggests that young adults are more likely to obtain bonding social capital via Facebook, when compared with other SNSs such Twitter or Instagram (Shane-Simpson et al., 2018). Thus, in order to fully investigate the potential effects of gender on relationship patterns, our second research question states:

RQ2: Is there a difference in online relationship maintenance behaviours patterns between females and males?

Online Well-being

Previous studies on SNSs' effect on individuals' health and well-being provide conflicting results (Campisi et al., 2012). Campisi and his colleagues (2012) found that Facebook could negatively impact individuals' physical and emotional health, pointing to an increase in emotions such as anger or sadness, which resulted from previous negative online interactions. For the purposes of the current study, we use online well-being to attribute the positive or negative effects of online interactions on the overall

emotional well-being of an individual. This may be influenced by perceived stress and individual self-esteem but is moderated by levels of self-disclosure.

Perceived stress. Due to Facebook's increased influence on the lives of individuals, numerous studies have examined the relationship between the use of Facebook and perceived stress (Campisi et al., 2012; George, Dellasega, Whitehead, & Bordon, 2013; Wright, 2012). In a study of 283 students at a medium-sized university in the southwest, results indicated a negative correlation between levels of perceived emotional support from Facebook friends and perceived levels of stress (Wright, 2012). In an examination of Facebook use and stress, Campisi and colleagues (2012) found that 53% percent of the participants reported moderate Facebook-induced stress, and 14% percent experienced high Facebook-induced stress. Cohen, Kamarck, and Mermelstein (1983) conducted a study regarding levels of perceived stress noted key differences between perceived stress and objective stress and found that scores for levels of perceived stress were reliable indicators of daily hassles measured within short time periods of approximately one to two months. These indicators were distinguished from objective stress scores measured by the number of actual stressful life events such as unemployment, bereavement, and exposure to intense levels of noise within a time period of about six to twelve months (Cohen et al., 1983). Thus, this study is concerned with levels of perceived stress experienced by individuals within their online relationships.

Self-esteem. A widely studied concept, self-esteem, has been used to reflect a person's overall emotional evaluation of his/her own worthiness. It is self-judgment as well as self-attitude. Previous studies (Baumeister, Campbell, Krueger, & Vohs, 2003) found that a relatively high and healthy level of self-esteem is positively related with positive outcomes, such as being able to act according to what people believe to be the best choice, trusting their own decisions, and not feeling guilty when others do not like their decisions. Relatively low self-esteem, however, usually correlates with negative outcomes, such as heavy self-dissatisfaction, pessimism, and general resentment (Baumeister et al., 2003).

Self-disclosure. Self-disclosure has been used to refer to the process of communication in which a person reveals himself or herself to others. With the development of modern technology, greater attention has been paid to the area of online self-disclosure. Higher self-disclosure relates to higher possibility of feeling comfortable self-disclosing during online communication, including e-mail, instant message, social networking sites, and blogs. Walther and Boyd (2002) argued that positive attitudes toward online disclosure may motivate seeking online social support. Moreover, McKenna and her colleagues (2002) examined those who feel they can better express their true selves in online context, and that such orientation is associated with the development of online relationships. In fact, individuals who feel confident about expressing their "true selves" on Facebook are more likely to post more emotional content (Seidman, 2013), which relates to their online well-being. Further, Wendorf and Yang (2015) found that even perceived negative disclosure has positive effects on overall relationship maintenance and bridging social capital. Thus, research question three states:

RQ3: *Is there a difference in indicators of online well-being, such as perceived stress, self-esteem, and online self-disclosure between females and males?*

Materials and Method

Data Collection

To investigate the research questions proposed, young adults from a southeastern university in the U.S. were recruited upon IRB approval. Out of those, a total of 367 respondents completed the survey. Five respondents were deleted from the final data analysis because of the number of incomplete responses, or for being an outlier (such as reporting to spend more than 14 hours on Facebook per day). Another 21 questionnaires were removed from the data analysis due to participants indicating they did not have a Facebook account according to the filter question "Do you have a Facebook account?" After data screening, 341 qualified questionnaires were input and analysed via SPSS.

Questionnaire Design

The questionnaire focused on four main areas: (a) Facebook usage, (b) relationship maintenance behaviours, (c) indicators of online well-being, (perceived stress, self-esteem, and self-disclosure), and (d) demographics. To measure the amount of time spent on Facebook, a ratio-level measurement question was constructed: "In the past week, on average, approximately how much time per day did you spend on Facebook?" Additionally, the Facebook Intensity Scale (FBI) was adopted to measure Facebook usage beyond simple measure of frequency and duration, merging emotional connection to the site (Steinfeld et al., 2008) FBI is a 5-point Likert-type scale containing six items, such as "Facebook is part of my everyday activity," with a Cronbach's α of 0.87. To measure the amount of time participants spent on Facebook venting negative feeling, a single-item measurement was adopted: "In the past week, on average, approximately how much time per day did you spend on Facebook to vent negative feelings?" A single-item question of "Approximately how many total Facebook friends do you have?" was constructed to measure total amount of Facebook friends.

To measure participants' relationship maintenance behaviours, the Facebook Relationship Maintenance Behaviours scale (McKenna, Green, & Gleason, 2002; FRMB) was adopted. The FRMB scale aims at reflecting the participants' perceptions of positive outcomes associated with communication with their Facebook friends through measuring their behaviours during this interaction (McKenna et al., 2002). The scale consists of five items, such as "When I see a friend or acquaintance sharing good news on Facebook, I try to respond," which were measured on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Participants' relationship maintenance behaviours score was obtained by taking the mean of the 5 items, as the scale developers suggested. The Cronbach's α for FRMB was 0.85.

Participants' perceived stress was measured by the Perceived Stress Scale (PSS) (Cohen et al., 1983). PSS is a psychological tool used to measure an individual's perception of stress levels; that is, the degree to which a person considers his/her life events as being stressful. Respondents were asked 10 questions regarding the frequency of feeling stress during the last month. On a 5-point Likert-like scale, participants chose from 0 (*never*) to 4 (*very often*) to answer questions such as "In the last month, how often have you felt that you were on top of things?" (Wright, 2012). Participants' PSS scores were obtained by reversing the scores on the four positive items and then summing across all 10 items. (Items 4, 5, 7, and 8 are the positively stated items.) PSS's Cronbach's α was 0.85.

Self-esteem was measured using seven items from Rosenberg (Ellison, Vitak, Gray, & Lampe, 2014) self-esteem scale. The answers to these 5 items were reported on a 5-point Likert-like scale, such as "On a whole, I am satisfied with myself," and exhibited high reliability ($\alpha = 0.87$).

Online self-disclosure was measured using the seven items from Measuring Online Communication Apprehension (MOCA) self-disclosure scale (Ledbetter, 2009). The answers to these 5 items were reported on a 7-point Likert-like scale. Item example is "When online, I feel comfortable disclosing personal information to a member of the opposite sex." MOCA's Cronbach's α was 0.86.

Results

Analysis of variance (ANOVA) and multivariate analysis of variance (MANOVA) were adopted to investigate the potential difference in gender patterns on social media usage, Facebook relationship maintenance behaviours, and online well-being (perceived stress, self-esteem, and self-disclosure). 58.4% of the participants ($n = 199$) in this study were female. Participants' ages ranged from 18 to 67 years ($M = 21.02$, $SD = 4.53$). The majority of participants were White (55.7%), followed by Hispanic (20.8%), Asian (9.4%), Black (8.5%), and 13 participants (3.8%) identified themselves as other ethnic groups; six participants did not specify their ethnicities. A total of 83.6% of the participants reported being U.S. citizens.

Participants in our sample spent on average, 83 minutes ($SD = 88.29$) on Facebook per day, and 5 minutes ($SD = 20.49$) used on Facebook to vent negative feelings. The average score of FBI was 3.19 ($SD = 0.89$) and the average PSS score was 17.66 ($SD = 5.99$). The average level of Facebook relationship maintenance was 3.00 ($SD = 0.85$).

For research question one, several ANOVAs were conducted with gender as the independent variable and FBI score and time spent on Facebook as dependent variables. For FBI score, Levene's test of equality of error variance was not significant ($F(1, 338) = 1.31, p = .254$), which indicated the homogeneity assumption was met. Gender was shown to be a significant factor ($F(1, 338) = 4.70, p = .031$). The results showed that females had a significant higher score on FBI than males ($M_{diff} = 1.42, SE = 0.65, p = .031$). However, female and male respondents tended to spend similar amount of time on Facebook ($M_{diff} = 13.71, SE = 9.86, p = .166$) and venting negative feelings on Facebook ($M_{diff} = -2.66, SE = 2.34, p = .258$).

To answer the second research question on Facebook relationship maintenance, a one-way ANOVA was conducted. All the assumptions, including Levene's test ($F(1, 338) = 1.32, p = .252$), for ANOVA were met. The results indicated that female and male had significant difference in terms of the tendency to maintain their relationships on Facebook ($F(1, 338) = 5.09, p = .025$). Females showed to put significantly higher level of effort to maintain their relationships on Facebook ($M_{diff} = 1.05, SE = 0.46, p = .025$) than males.

To answer the third research question on gender difference on well-being, MANOVA was conducted with gender as the independent variable and perceived stress, self-esteem, and self-disclosure as dependent variables. To make sure the three measurements were in the same direction, the participants' perceived scores were revised where lower scores indicated higher level of perceived stress. Box's M was 4.60 ($F(6, 621550) = .76, p = .603$), which indicated the assumption of homogeneity was met for this model. Since all the assumptions were met, Wilk's Lambda adjustment was adopted, and the value of .97 was statistically significant ($F(3, 336) = 3.90, p = .009$), which indicated that females and males in our sample had statistically significant differences in their online well-being (perceived stress, self-esteem, and self-disclosure). To further investigate the gender differences in each variable, three univariate analyses of variance were conducted. The results indicated that female and male were significantly different on perceived stress ($F(1, 338) = 4.70, p = .031$) and self-disclosure ($F(1, 338) = 5.21, p = .023$). Female had relatively higher level of perceived stress ($M_{diff} = -1.42, SE = 0.65, p = .031$) and lower self-disclosure ($M_{diff} = -2.38, SE = 1.04, p = .023$) than male. Yet no significant difference of self-esteem was detected between female and male ($M_{diff} = -.174, SE = .56, p = .758$).

Discussion

The primary goal of this study was to explore potential gender differences in social media usage patterns, social media relationship maintenance behaviours, and factors associated with online well-being, such as perceived stress, self-esteem, and self-disclosure. The findings revealed that females and males showed significant differences in social media usage, Facebook relationship maintenance, and well-being related factors. The results suggested that females had a significantly higher score on the Facebook Intensity (FBI) Scale than males. The FBI has been developed to measure Facebook usage beyond simple measures of frequency and duration, incorporating emotional connectedness to the site and its integration into individuals' daily activities.

By containing a significant higher score on FBI yet with no statistical difference in the amount of time spent on Facebook, females tend to be suggested to have a stronger emotional connection with Facebook, which may indicate that Facebook could be adopted as a cyber environment for females looking for social support. The scores on Facebook friendship maintenance showed that females paid higher attention and put more effort into maintaining relationships on Facebook than males. The results are consistent with the earlier research that found females scored higher on FBI scale. One potential explanation could be that since females engage more with Facebook community members, they placed greater efforts to maintaining their relationships on the platform.

Another way to interpret this finding could be, since females paid more attention on the maintenance of relationships on Facebook than males, they felt more engagement with Facebook community members. Since the current method of analysis could not handle causal relationship well, future studies should consider an SEM model for investigating this potential association. The results of this study also revealed that females had significantly higher levels of perceived stress and lower levels of online self-disclosure, which are the factors associated with their overall well-being. This result indicates that in certain areas females may have significantly lower levels of online well-being than males, highlighting

the importance of fully understanding women's online experiences in order to elevate the quality of the mediated platform to provide them with a conducive communication environment.

More precisely, because of the dialectic tension that exists in this mediated environment – women search to bridge social capital, spending significant amounts of time online, but are left with muted (lower levels of online disclosure) and with online well-being impacted (vis-à-vis higher perceived stress). Such low levels of disclosure lead to higher uncertainty because it hampers interactive processes, which may position women at risk to continue engagement with the platform or perceive discomfort as they continue to navigate through these online spaces. Thus, their online social support is reduced, which cyclically affects disclosure. That said, there is also evidence (Huang, 2016) that any kind of self-disclosure is likely to develop positive social support (or social capital), but low self-disclosure indicates a negative social capital in spaces where the women already feel muted, and this is critical in their desirability to continue to engage with the mediated environment – Facebook in this case.

Together, these findings indicate the critical need to continue exploring the effects of mediated communication and gendered online spaces on women. Specifically, a direct examination of the language usage – passive and/or active – could provide more information on more explicit ways in which women might inadvertently engage in muting behaviour, perceived mutedness, or be muted by the dominant group. Moreover, since the current study looked at an indirect relationship of uncertainty with mediated experiences of women, we encourage researchers in the field to pursue empirical comparative analysis of uncertainty levels of women with their overall online well-being.

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